

ITEA enables
the pioneering
of the software
concepts of
tomorrow



02

The difficulty in planning software innovation

Software innovation is difficult to plan. It can happen suddenly and from a software idea completely new activities can emerge. No one predicted the birth of Google or Facebook. Starting as just a new piece of software associated with a smart business model, quick adoption combined with the power of the network effect ended up with two Internet giants.

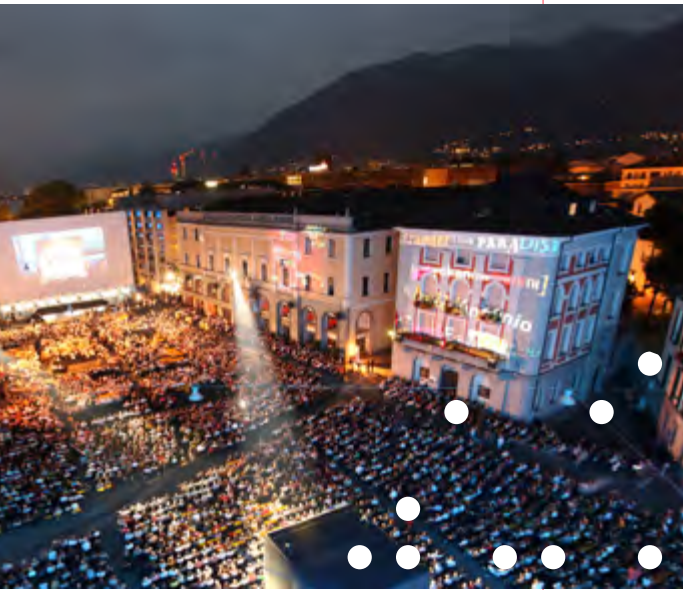
The same happens in more traditional industries, where software innovations often emerge without planning, just from a smart idea, unique developments and fast adoption. But when the idea is there, speed is a crucial success factor in its transformation to a product, process or service.

ITEA offers the freedom to create forerunner projects

Speed is a key benefit of ITEA's bottom-up approach and agile processes, as it enables ITEA project partners to be pioneers in software innovation. Thanks to its bottom-up approach, ITEA can create RD&I projects on any topic related to software innovation, based on the strong expertise of its visionary Community members. The agile processes allow ITEA projects to follow market and technology developments, translate these to groundbreaking or disruptive concepts and projects, learn from experiences and continuously steer towards practicable outcomes. Outcomes that often lead to rapid market introduction. In the past, these features led to innovations within important topics even before they became one of the new trends in the IT industry.

DIGITAL CINEMA (2001-2003)

Revolutionising the market



The Digital Cinema project laid the very first basis in the transformation from analogue 35mm film in cinema to the digital technology shift that followed. This ITEA project started the wave of the new technology for cinema, going to digital, enabling the new generation of film distribution. Thanks to this, 3D movies in the cinemas became possible. In addition, movies can now be distributed at the same time at any location anywhere in the world, regardless of the cinema size. Moreover, it is now possible to go to cinemas and theatres for live events, for example, to see an opera performed in New York, displayed live in any other city of the world. The Digital Cinema project really revolutionised the market.

A worldwide modelling and simulation standard for the value chain of CPS Digital Twins

MODELISAR (2008-2011)

Virtualisation by means of modelling and simulating the behaviour of cyber-physical systems (CPS) was used by manufacturing companies via proprietary software solutions before MODELISAR. In the MODELISAR project, Dassault Systèmes' knowledge on simulation combined with Daimler's and other manufacturers' knowledge on the end user requirements was brought together to a global standard called Functional Mock-up Interface (FMI). This now enables models from different industry actors and simulation environments to be shared conveniently. This new concept has enabled faster adaptation of CPS Digital Twins. FMI has benefited from a massive and viral worldwide adoption - it is currently supported by some 100 modelling, simulation, code generation and testing tools offered by more than 50 tool suppliers; we are now talking about the exchange and co-simulation of such Digital Twins. MODELISAR project leader, Patrick Chombart from Dassault Systèmes states that the "consortium had benefited from a strong mix of ITEA support and challenge to bring the emerging FMI standard to industrial impact." The FMI standard is now managed and developed as a Modelica Association Project (MAP) through the active participation of 16 companies.



MEDUSA
(2013–2015)

Early adaptors of the cloud



In MEDUSA, 13 partners from France and the Netherlands worked together to develop cloud-based radiological image analysis for the fast processing of large amounts of image data, years before this became a generally accepted solution.

The aim of the project was to develop a generic approach through which medical staff could collaboratively analyse patient data and decide on treatments. The key to MEDUSA's vision is a platform through which many different eHealth systems, including data management, visualisation and analysis, decision support and more, can be made available via the cloud. This allows previously incompatible systems to work together, provides virtual workspaces for medical staff to collaborate, and assures patient data privacy. Bringing medical staff, patient data and support software together in the cloud accelerates and improves medical decision making, which can save lives. For example, MEDUSA allows doctors to already know relevant medical history of a patient before the ambulance picks up that person, thanks to the secure transmission of relevant medical data linked to the person's eHealth identity. During the ambulance ride, moreover, the paramedic's initial investigations can be observed by live video. The operating theatre and team can be ready for the patient by the time of arrival.

